If the reader responded to the earliest possible clue, which the fixation point obliterated, and his lag time was a minimum **0.125** secs. and his return sweep was quite brief, **0.03** secs. and his vergence and accommodation time was quite short, **0.01** secs., the amount of print provided by the new helix of the present invention would be an amount in accord with or in excess of the reader's average span of recognition requirements. On the other hand, the old helix design provided approximately **15** to **20** percent less than the reader's average span of recognition requirements.

In addition the new helix, by occluding end line of print more rapidly, prompts a reader to execute a return sweep at an earlier point in the line than did the old helix design and by so doing discourages all readers to lag or delay less at the conclusion of each line and to be more responsive to the conclusion of a line of print.

Connected to the gear motor **20** is a potentiometer or speed controller **47** provided with a numbered dial on the outside of the casing so that the motor can be set at the desired speed. The device is thus capable to providing between **10** and **600** lines per minute. The speed shifter, heretofore described, allows for two speed ranges; a reading rate range extending slightly beyond **750–800** words per minute as well as a range extending well beyond **800** words per minute than can present prints at rates up to four times that usual for a reading range in order to provide for skimming or processing training. In addition there is a trim potentiometer **48** or voltage regulator to compensate for the supply voltage variation. This assures that the reading rates on the potentiometer will be accurate.

The controlled reading device of the present invention makes use of projection as a means of presenting the reading material on a front or rear projection screen, and the material to be projected is in film strip **46** form with every two lines of material corresponding to a notch on the stick slide with an average strip comprising title, code and **320** lines of reading and viewing material to be projected, so that each line of material to be projected may be aligned with the projection aperture successively. Since two lines of viewing material correspond to a notch on the stick slide, when one slide member or like means is engaging a notch, the other slide member is positioned between two notches. Thus, as the one slide member retracts and the other projects to engage a notch the stick slide exposes the next line but only moves one half the distance between notches.

In the operation of the device, the instructor determines the speed of operation of the device, that is, the number of lines per minute to be exposed or projected by adjustment of the speed controller **47** and the slide stick, on which is mounted the film strip to be projected, is inserted into the projector. The slide member **38** stops the stick slide when it engages the first notch of the slide. The projector and the motor are turned on and the device is in automatic operation by means of the motor **20** which operates shaft **21,** helix members **26** and slot **27,** as described above.

The use and purpose of the controlled reading device should be apparent from the foregoing description. Thus, the aforenoted objects and advantages are most effectively attained. Although the preferred embodiment of the invention has been disclosed and described herein, it should be understood that this invention is in no sense limited thereby and its scope is to be determined by that of the appended claims.

Thus as previously indicated, the specific mechanism for obtaining the more rapid unveiling of the initial segment of the line and for obtaining more rapid transition from one line to another may be varied. In addition, under certain circumstances the more rapid occlusion of the end of each line may be omitted provided that the system provides for a more rapid unveiling of the initial portion of the succeeding line.

I claim:

1. A reversible slide stick for use with a film projector of the type having a gravity feed for the slide stick and having a pawl mechanism in the projector for releasing the film strip for gravity feed so as to project successive lines of visual material on the film strip, said slide stick comprising:

an elongated member having successive lines of visual material displayed thereon for projection through said projector and a pair of spaced rows or ratchet teeth extending lengthwise of said member with each row being adjacent a longitudinal edge of the member and being in synchronized relationship with respect to lines of visual material and for releasable engagement by the pawl mechanism of the projector; and

the teeth extending out of the plane of the member containing the visual material displayed thereon and one row pointing downward to form a shoulder in one direction for engagement with the pawl mechanism and to permit free movement in the other direction and the other row of teeth pointing downward in the opposite direction to the first row of teeth to thereby permit reversibility of the member in use with the projector.

2. A reversible slide stick for use with a film projector of the type having a gravity feed for the slide stick and having a pawl mechanism in the projector for releasing the film strip for gravity feed so as to project successive lines of visual material on the film strip, said slide stick comprising:

an elongated member having first and second successive lines of visual material displayed thereon in parallel columns for projection through said projector with said columns being in relatively inverted relationship with respect to each other and first and second rows of ratchet teeth extending lengthwise of said member in association with said first and second columns of visual material and also in inverted relationship with respect to each other and in synchronized relationship with respect to the lines of visual material in said columns and adapted for releasable engagement by the pawl mechanism of the projector; and

the rows of ratchet teeth being spaced with each row being adjacent a longitudinal edge of the member and the teeth extending out of the plant of the member containing the visual material displayed thereon and one row pointing downward to form a shoulder in one direction for engagement with the pawl mechanism and to permit free movement in the other direction and the other row of teeth pointing downward in the opposite direction to the first row of teeth to thereby permit reversibility of the member in use with the projector.

3. An improved projector for use with a reversible slide stick of the type having visual material displayed